

Remarks/Arguments:

Applicants thank the Examiner for removing the finality of the last Office Action rejection.

Claims 1, 3-5, 39-63 and 65-82 are pending. These claims stand as being objected-to or as rejected.

Drawings

As requested, applicants have now added new Fig. 18, which shows electrodes 27a' and 27b' as having a mesh-like structure. Basis for the electrodes having a mesh-like structure, may be seen, for example, in the third paragraph, at page 27 of the specification.

Section 102 Rejection

Claims 1, 4, 5, 40, 41 and 43 have been rejected as being anticipated by Bartky. Applicants respectfully submit that this rejection is overcome for the reasons set forth below.

Amended claim 1 now includes features which are not disclosed or suggested by the cited reference, namely:

- one of the fixed walls is disposed adjacent to the ink pressure chamber and another of the fixed walls is disposed adjacent to the pressure buffer chamber, and
- **each of the fixed walls is more difficult to bend compared with the partition wall.**

Basis for the fixed walls being more difficult to bend compared with the partition wall may be seen, for example, in the specification at page 7, bottom paragraph. As stated, "when the fixed wall includes a portion firmer than the partition wall ..., the strength of the ink jet recording head can be further enhanced." Thus, the fixed wall is firmer and more difficult to bend compared with the partition wall.

Features of claim 1 may be seen, for example, in Fig. 3. As shown, on one side of ink pressure chamber 3 is disposed one fixed wall (not labeled) and on one side of buffer chamber 5 is disposed another fixed wall (not labeled).

The Examiner, in the Office Action, states that Bartky discloses a recording head as shown in Fig. 9b. The Examiner states that wall 603 is a fixed wall disposed adjacent to ink

pressure chamber 613. Another fixed wall 603 is disposed adjacent to pressure buffer chamber 615. Thus, the Examiner asserts that wall 603 is a fixed wall.

Bartky at col. 8, lines 59-68, refers to wall 603 as being a **shear mode actuator wall**. Applicants submit that wall 603 is **not a fixed wall** and, instead, **bends** toward pressure chamber 613 to eject ink from the chamber. Accordingly, Fig. 9b does **not** disclose a fixed wall disposed adjacent to an ink pressure chamber and another fixed wall disposed adjacent to a pressure buffer chamber.

Applicants have now further limited claim 1 by distinguishing a fixed wall from a partition wall, by reciting that **the fixed wall is more difficult to bend compared with the partition wall**. Bartky does **not** disclose a fixed wall that is more difficult to bend than a partition wall.

Applicants also note that at page 10 of the Office Action, the Examiner found a feature of claim 55 to be allowable, namely "each of the fixed walls includes a portion firmer than the partition wall". Claim 1 is now in accord with this feature, in that the fixed wall is more difficult to bend compared with the partition wall. Favorable reconsideration is requested for amended claim 1.

Although not the same, claim 4 has also been amended to include a feature similar to claim 1, namely "each of the fixed walls (a, b) is more difficult to bend compared with each of the partition walls (a, b)".

Amended claim 4 is, therefore, not subject to rejection in view of the cited reference for at least the same reason set forth for amended claim 1. Favorable reconsideration is requested for claim 4 and its dependent claims.

Claims 3, 39, 42, 44-50, 58, 61-63, 71, 76 and 81 have been rejected as being anticipated by applicants' admitted prior art (AAPA). Applicants respectfully submit that this rejection is overcome for the reasons set forth below.

Amended claim 3 now includes features which are not suggested by the cited reference, namely:

- the first ink pressure chamber, the first partition wall, the pressure buffer chamber, the second partition wall, and the second ink pressure chamber are arranged in sequence along a thickness direction of the piezoelectric block,

- the first fixed wall is disposed adjacent to the first ink pressure chamber, and the second fixed wall is disposed adjacent to the second ink pressure chamber, and
- **each of the first and second fixed walls is more difficult to bend compared with each of the first and second partition walls.**

Features of claim 3 may be seen, for example, in Fig. 4. As shown, the elements are arranged in the following sequence along the thickness direction: first fixed wall 6, first ink pressure chamber 3a, first partition wall 4a, buffer chamber 5, second partition wall 4b, second ink pressure chamber 3b, and second fixed wall 6.

The Examiner states that AAPA discloses, in Fig. 17, a pressure buffer chamber 108 and first and second fixed walls (noted as 102). Applicants' specification, at page 2, lines 6-28, describes this ink jet recording head as including "**piezoelectric ceramic material 102 with a pair of driving electrodes 103 interposed therebetween**" and "a voltage is applied to the driving electrodes 103 . . . , thereby, **deforming the piezoelectric ceramic material**". Therefore, applicants respectfully submit that the Examiner's fixed walls 102 are **not fixed walls** and, instead, are deformed walls as they move upon application of a voltage.

In addition, applicants have limited claim 3 in a manner similar to amended claim 1 by reciting that **each of the first and second fixed walls is more difficult to bend compared with each of the first and second partition walls**. This distinction between the first and second fixed walls being more difficult to bend compared with each of the first and second partition walls are **not** disclosed or suggested by the AAPA.

Favorable reconsideration is requested for amended claim 3 and its dependent claims.

Although not the same, claim 81 has been amended to include features similar to amended claim 3. Therefore, amended claim 81 is not subject to rejection in view of the cited reference for the same reasons set forth for amended claim 3. Favorable reconsideration is requested for claim 18 and its dependent claim 82.

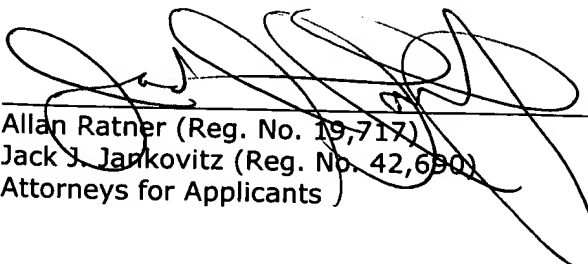
Allowable Subject Matter

Claims 51-57, 59, 65-69, 72-75 and 77-80 have been objected-to as being dependent upon a rejected base claim but would be allowable if rewritten into independent form. Applicants have not rewritten these dependent claims and, instead, are relying on the patentability of independent claims 1, 3, 4 and 81.

Conclusion

Claims 1, 3-5, 39-63 and 65-82 are in condition for allowance.

Respectfully submitted,



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Attachments: Figure 18 (1 sheets)

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